AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listing of claims in the application.

Listing of Claims

1-8 (Cancelled)

9. (Currently Amended) A head cartridge having an ~~The~~ XY stage ~~as claimed in claim 8,~~ supported by a surface plate reference base, comprising:

a movable frame movable on said reference base along one of an X axis and a Y axis, said movable frame having a rectangular space inside thereof; a first drive source provided in said reference base, for moving said movable frame; a rectangular movable base mounted within said rectangular space of said rectangular movable frame, said rectangular movable base being movable on said reference base along the other of the X and Y axes and stopped on said reference base; and a second drive source provided in said movable frame, for moving said movable base;

a fine elevation mechanism for floating said movable base from said surface of said reference base when said movable base is moved and making said movable base in contact with said surface of said reference base when said movable base is stopped,

wherein said reference base is formed of stone and a surface of said movable base, which is in contact with said reference base, is surface-plate finished.

wherein said movable frame is rectangular in plan view, a first bearing means is provided on opposing two sides of said rectangular movable frame for supporting said movable base movably, a second bearing means is provided between the other opposing two sides of said movable frame and said reference base and said first and second drive sources are linear motors, respectively, and

wherein said first bearing means has a fixed side member and a movable side member, said fixed side member of said first bearing means fixed onto a rear surface of said rectangular movable frame, said movable side member of said first bearing means fixed onto said movable

base.

10. (Currently Amended) A head carriage ~~The XY stage~~ as claimed in claim 9, wherein said first and second bearing means are ball-and-roller bearings, respectively, a movable plane of said movable base supported by said first ball-and-roller bearing is substantially the same as a movable plane of said reference base supported by said second ball-and-roller bearing.

11. (Currently Amended) ~~The XY stage~~ A head carriage as claimed in claim 10, wherein said first ball-and-roller bearing is a ball bearing, said movable frame is formed of a flexible material, which is bent when said movable base is separated from said reference base, movable side members and fixed side members of said ball bearings are fixed to opposing two sides of said movable base and to the other opposing two sides of said movable base, respectively, said movable base is pressed to said reference base and locked thereon by said fine elevation mechanism when said movable base is stopped, in which said fixed side members and said movable side members of said ball bearings are in contact with each other through bearing balls.

12-16 (Cancelled)

17. (Currently Amended) A head carriage having an XY stage including a movable base for supporting a magnetic head assembly or a magnetic head cartridge and a surface plate reference base, said movable base being supported by said reference base through bearings, said XY stage comprising:

a movable frame movable on said reference base along one of an X axis and a Y axis, said movable frame having a rectangular space inside thereof;

a first drive source provided in said reference base, for moving said movable frame;

a rectangular movable base mounted within said rectangular space of said rectangular movable frame, said rectangular movable base being movable on said reference vase along the other of the X and Y axes and stopped on said reference base; ~~and~~

a second drive source provided in said movable frame, for moving said movable base; and

a fine elevation mechanism for floating said movable base from said surface of said reference base when said movable base is moved and making said movable base in contact with said surface of said reference base when said movable base is stopped, wherein

said reference base is formed of stone and a surface of said movable base, which is in contact with said reference base, is surface-plate finished;

said movable base is supported by said reference base through a bearing means;

said movable frame is rectangular in plan view and said bearing means has a fixed side member, a movable side member and a ball bearing having bearing balls between said fixed side member and said movable side member;

said fixed side member of said bearing means is rigidly integrated with said movable member thereof; and

said movable frame is bent when said movable base floats up.

18. (Currently Amended) A head carriage having an XY stage including a movable base for supporting a magnetic head assembly or a magnetic head cartridge and a surface plate reference base, said movable base being supported by said reference base through bearings, said XY stage ~~The head carriage as claimed in claim 17, further~~ comprising:

a movable frame movable on said reference base along one of an X axis and a Y axis, said movable frame having a rectangular space inside thereof;

a first drive source provided in said reference base, for moving said movable frame;

a rectangular movable base mounted within said rectangular space of said rectangular movable frame, said rectangular movable base being movable on said reference vase along the other of the X and Y axes and stopped on said reference base;

a second drive source provided in said movable frame, for moving said movable base; and

a fine elevation mechanism for floating said movable base from said surface of said reference base when said movable base is moved and making said movable base in contact with

said surface of said reference base when said movable base is stopped, wherein

said fine elevation mechanism comprises pressing means provided in said movable frame or said reference base, for pressing said movable base toward said reference base to make said movable base in contact with said surface of said reference base to thereby lock down said movable base on said surface of said reference base, and a movable base floating mechanism for floating said movable base from said surface of said reference base against pressing force of said pressing member, said movable base being moved while supported by said reference base through said bearings, and

one side of said rectangular space of said movable frame is opened.

19. (Currently Amended) ~~The~~ A magnetic head tester for testing a magnetic head by using a head carriage including an XY stage including a movable base for supporting a magnetic head assembly or a magnetic head cartridge and a surface plate reference base, said movable base being supported by said reference base through bearings, said XY stage comprising:

a movable frame movable on said reference base along one of an X axis and a Y axis, said movable frame having a rectangular space inside thereof;

a first drive source provided in said reference base, for moving said movable frame;

a rectangular movable base mounted within said rectangular space of said rectangular movable frame, said rectangular movable base being movable on said reference base along the other of the X and Y axes and stopped on said reference base;

~~and~~ a second drive source provided in said movable frame, for moving said movable base; and

a fine elevation mechanism for floating said movable base from said surface of said reference base when said movable base is moved and making said movable base in contact with said surface of said reference base when said movable base is stopped, wherein

said reference base is formed of stone and a surface of said movable base, which is in contact with said reference base, is surface-plate finished;

said movable base is supported by said reference base through a bearing means;

said movable frame is rectangular in plan view and said bearing means has a fixed side member, a movable side member and a ball bearing having bearing balls between said fixed side member and said movable side member;

said fixed side member of said bearing means is rigidly integrated with said movable member thereof; and

said movable frame is bent when said movable base floats up.

20. (Currently Amended) ~~The~~ A magnetic head tester ~~as claimed in claim 19, further~~ for testing a magnetic head by using a head carriage including an XY stage including a movable base for supporting a magnetic head assembly or a magnetic head cartridge and a surface plate reference base, said movable base being supported by said reference base through bearings, said XY stage comprising:

a movable frame movable on said reference base along one of an X axis and a Y axis, said movable frame having a rectangular space inside thereof;

a first drive source provided in said reference base, for moving said movable frame;

a rectangular movable base mounted within said rectangular space of said rectangular movable frame, said rectangular movable base being movable on said reference base along the other of the X and Y axes and stopped on said reference base;

a second drive source provided in said movable frame, for moving said movable base; and

a fine elevation mechanism for floating said movable base from said surface of said reference base when said movable base is moved and making said movable base in contact with said surface of said reference base when said movable base is stopped, wherein

said fine elevation mechanism comprises pressing means provided in said movable frame or said reference base, for pressing said movable base toward said reference base to make said movable base in contact with said surface of said reference base to thereby lock down said movable base on said surface of said reference base, and a movable base floating mechanism for floating said movable base from said surface of said reference base against pressing force of said pressing member, said movable base being moved while supported by

said reference base through said bearings, and

one side of said rectangular space of said movable frame is opened.

21. (Currently Amended) A magnetic disk tester for testing a magnetic disk by using a head carriage including an XY stage including a movable base for supporting a magnetic head assembly or a magnetic head cartridge and a surface plate reference base, said movable base being supported by said reference base through bearings, said XY stage comprising:

a movable frame movable on said reference base along one of an X axis and a Y axis, said movable frame having a rectangular space inside thereof;

a first drive source provided in said reference base, for moving said movable frame;

a rectangular movable base mounted within said rectangular space of said rectangular movable frame, said rectangular movable base being movable on said reference base along the other of the X and Y axes and stopped on said reference base; ~~and~~

a second drive source provided in said movable frame, for moving said movable base;

a fine elevation mechanism for floating said movable base from said surface of said reference base when said movable base is moved and making said movable base in contact with said surface of said reference base when said movable base is stopped, wherein

said reference base is formed of stone and a surface of said movable base, which is in contact with said reference base, is surface-plate finished;

said movable base is supported by said reference base through a bearing means;

said movable frame is rectangular in plan view and said bearing means has a fixed side member, a movable side member and a ball bearing having bearing balls between said fixed side member and said movable side member;

said fixed side member of said bearing means is rigidly integrated with said movable member thereof; and

said movable frame is bent when said movable base floats up.

22. (Currently Amended) A ~~The~~ magnetic disk tester ~~as claimed in claim 21, further~~ for testing a magnetic disk by using a head carriage including an XY stage including a movable

base for supporting a magnetic head assembly or a magnetic head cartridge and a surface plate reference base, said movable base being supported by said reference base through bearings, said XY stage comprising:

a movable frame movable on said reference base along one of an X axis and a Y axis, said movable frame having a rectangular space inside thereof;

a first drive source provided in said reference base, for moving said movable frame;

a rectangular movable base mounted within said rectangular space of said rectangular movable frame, said rectangular movable base being movable on said reference base along the other of the X and Y axes and stopped on said reference base;

a second drive source provided in said movable frame, for moving said movable base; and

a fine elevation mechanism for floating said movable base from said surface of said reference base when said movable base is moved and making said movable base in contact with said surface of said reference base when said movable base is stopped, wherein

said fine elevation mechanism comprises pressing means provided in said movable frame or said reference base, for pressing said movable base toward said reference base to make said movable base in contact with said surface of said reference base to thereby lock down said movable base on said surface of said reference base, and a movable base floating mechanism for floating said movable base from said surface of said reference base against pressing force of said pressing member, said movable base being moved while supported by said reference base through said bearings, and

one side of said rectangular space of said movable frame is opened.

23. (New) A magnetic head tester for testing a magnetic head by using a head carriage including an head cartridge having an XY stage supported by a surface plate reference base, comprising:

a movable frame movable on said reference base along one of an X axis and a Y axis, said movable frame having a rectangular space inside thereof; a first drive source provided in said reference base, for moving said movable frame; a rectangular movable base mounted

within said rectangular space of said rectangular movable frame, said rectangular movable base being movable on said reference base along the other of the X and Y axes and stopped on said reference base; and a second drive source provided in said movable frame, for moving said movable base;

a fine elevation mechanism for floating said movable base from said surface of said reference base when said movable base is moved and making said movable base in contact with said surface of said reference base when said movable base is stopped,

wherein said reference base is formed of stone and a surface of said movable base, which is in contact with said reference base, is surface-plate finished.

wherein said movable frame is rectangular in plan view, a first bearing means is provided on opposing two sides of said rectangular movable frame for supporting said movable base movably, a second bearing means is provided between the other opposing two sides of said movable frame and said reference base and said first and second drive sources are linear motors, respectively, and

wherein said first bearing means has a fixed side member and a movable side member, said fixed side member of said first bearing means fixed onto a rear surface of said rectangular movable frame, said movable side member of said first bearing means fixed onto said movable base.

24. (New) A magnetic disk tester for testing a magnetic disk by using a head carriage including an XY stage supported by a surface plate reference base, comprising:

a movable frame movable on said reference base along one of an X axis and a Y axis, said movable frame having a rectangular space inside thereof; a first drive source provided in said reference base, for moving said movable frame; a rectangular movable base mounted within said rectangular space of said rectangular movable frame, said rectangular movable base being movable on said reference base along the other of the X and Y axes and stopped on said reference base; and a second drive source provided in said movable frame, for moving said movable base;

a fine elevation mechanism for floating said movable base from said surface of said reference base when said movable base is moved and making said movable base in contact with said surface of said reference base when said movable base is stopped,

wherein said reference base is formed of stone and a surface of said movable base, which is in contact with said reference base, is surface-plate finished.

wherein said movable frame is rectangular in plan view, a first bearing means is provided on opposing two sides of said rectangular movable frame for supporting said movable base movably, a second bearing means is provided between the other opposing two sides of said movable frame and said reference base and said first and second drive sources are linear motors, respectively, and

wherein said first bearing means has a fixed side member and a movable side member, said fixed side member of said first bearing means fixed onto a rear surface of said rectangular movable frame, said movable side member of said first bearing means fixed onto said movable base.